

-30-

° **What is claimed is:**

1. A method for inducing an enhanced immunological response against at least one antigen in a mammal, said method comprising the steps of:

- 5 - inoculating the mammal with a first recombina-
nt vector comprising a DNA vector and a gene encoding said antigen; and
 - inoculating the mammal with a boosting immunization with a second recombina-
nt vector comprising a second DNA vector and the gene encoding said antigen.

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2. The method according to claim 1, wherein the first recombina-
nt vector comprises a recombina-
nt vaccinia virus vector.

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3. The method according to claim 1, wherein the first recombina-
nt vector comprises a recombina-
nt fowlpox virus vector.

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4. The method according to claim 1, wherein the first recombina-
nt vector comprises an adenovirus
vector.

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5. The method according to claim 1, wherein the recombina-
nt vectors further comprise a gene encoding
an immunostimulatory molecule.

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6. The method according to claim 1, wherein the second recombina-
nt vector comprises a recombina-
nt vaccinia virus vector.

7. The method according to claim 1 wherein the second recombina-
nt vector comprises a recombina-
nt fowlpox virus vector.

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8. The method according to claim 1 wherein the

-31-

- ° second recombinant vector comprises a recombinant adenovirus vector.

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9. The method of immunotherapy for treatment of a cancer patient, said method comprising the steps of:

- 5 - immunizing said patient with an effective amount of a first recombinant vector comprising a first viral vector and a gene encoding a tumor-associated antigen; and
- 10 - boosting said patient with an effective amount of a second recombinant vector comprising a second viral vector and the gene encoding the tumor-associated antigen.

15 10. The method according to claim 9, wherein the tumor-associated antigen comprises gp100.

 11. The method according to claim 9, wherein the tumor-associated antigen comprises MART-1.

20 12. The method according to claim 9, wherein the tumor-associated antigen comprises TRP-1.

 13. The method according to claim 9, wherein the tumor-associated antigen comprises TRP-2.

25 14. The method according to claim 9, wherein the recombinant vectors further comprise a gene encoding an immunostimulatory molecule.

30 15. The method according to claim 9, wherein the first viral vector comprises a vaccinia virus.

 16. The method according to claim 9, wherein the first viral vector comprises a fowlpox virus.

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-32-

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17. The method according to claim 9, wherein the first viral vector comprises an adenovirus.

18. The method according to claim 9, wherein the second viral vector comprises a vaccinia virus.

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19. The method according to claim 9, wherein the second viral vector comprises fowlpox virus.

20. The method according to claim 9, wherein the second viral vector comprises an adenovirus.

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